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### Federal Emergency Management Agency

Washington, D.C. 20472

## LETTER OF MAP REVISION DETERMINATION DOCUMENT

| COMMUNITY AND REVISION INFORMATION |   | PROJECT DESCRIPTION   | BASIS OF REQUEST  |  |  |  |
|------------------------------------|---|---|---|--|--|--|
| COMMUNITY                          | Fort Bend County<br>Texas<br>(Unincorporated Areas) | DETENTION BASIN<br>FILL   | HYDRAULIC ANALYSIS<br>HYDROLOGIC ANALYSIS<br>NEW TOPOGRAPHIC DATA |  |  |  |
|                                    | COMMUNITY NO.: 480228                               |   |   |  |  |  |
| IDENTIFIER                         | LID 15 Internal System - Snake Slough               | APPROXIMATE LATITUDE AND LONGITUDE: 29.543, -95.595 SOURCE: Precision Mapping Streets DATUM: NAD 83   |   |  |  |  |
| ANNOTATED MAPPING ENCLOSURES       |   | ANNOTATED STUDY ENCLOSURES  |   |  |  |  |
| TYPE: FIRM*                        | NO.: 48157C0265 J DATE: January 3, 1997             | DATE OF EFFECTIVE FLOOD INSURANCE STUDY: November 7, 2001 PROFILES: 48P, 49P, AND REMOVED 49P(A) SUMMARY OF DISCHARGES TABLE: 2 SUMMARY OF STILLWATER ELEVATIONS TABLE: 5 |   |  |  |  |

Enclosures reflect changes to flooding sources affected by this revision.

### FLOODING SOURCES AND REVISED REACHES

See Page 2 for Additional Flooding Sources

Snake Slough - from a point approximately 420 feet downstream of Hagerson Road to a point approximately 1,610 feet upstream of Hagerson Road and from the confluence with SS Lake 1 to just downstream of Oilfield Road

Alcorn Bayou - from a point approximately 8,870 feet downstream of University Boulevard to a point approximately 5,390 feet upstream of University Boulevard

| SUMMARY OF REVISIONS           |                    |                  |           |           |  |  |
|--------------------------------|--------------------|------------------|-----------|-----------|--|--|
| Flooding Source                | Effective Flooding | Revised Flooding | Increases | Decreases |  |  |
| Snake Slough                   | Zone AE            | Zone AE          | YES       | YES       |  |  |
|                                | Zone AE            | Zone X (shaded)  | YES       | NONE      |  |  |
|                                | BFEs*              | BFEs             | YES       | YES       |  |  |
| Alcorn Bayou                   | Zone AE            | Zone AE          | YES       | YES       |  |  |
| * BEEs - Base Flood Flevations |                    |                  |           |           |  |  |

### **DETERMINATION**

This document provides the determination from the Department of Homeland Security's Federal Emergency Management Agency (FEMA) regarding a request for a Letter of Map Revision (LOMR) for the area described above. Using the information submitted, we have determined that a revision to the flood hazards depicted in the Flood Insurance Study (FIS) report and/or National Flood Insurance Program (NFIP) map is warranted. This document revises the effective NFIP map, as indicated in the attached documentation. Please use the enclosed annotated map panels revised by this LOMR for floodplain management purposes and for all flood insurance policies and renewals in your community.

This determination is based on the flood data presently available. The enclosed documents provide additional information regarding this determination. If you have any questions about this document, please contact the FEMA Map Information eXchange (FMIX) toll free at 1-877-336-2627 (1-877-FEMA MAP) or by letter addressed to the LOMC Clearinghouse, 847 South Pickett Street, Alexandria, VA 22304-4605. Additional Information about the NFIP is available on our Web site at http://www.fema.gov/business/nfip.

Stuart W. Rooney, CFM, PMP, Program Specialist Engineering Management Branch Federal Insurance and Mitigation Administration

<sup>\*</sup> FIRM - Flood Insurance Rate Map

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## LETTER OF MAP REVISION DETERMINATION DOCUMENT (CONTINUED)

#### OTHER FLOODING SOURCES AFFECTED BY THIS REVISION

#### FLOODING SOURCES AND REVISED REACHES

Alcorn Bayou - from a point approximately 8,870 feet downstream of University Boulevard to a point approximately 5,390 feet upstream of University Boulevard SS Lake 1 - Approximately 1,450 feet northwest of the intersection of Manor Drive and Meadow Road

AB Lake A1 - Approximately 1,600 feet southwest corner of the intersection of Maranatha Drive and Cabrera Drive

AB Lake A2 - Approximately 970 feet southwest of the intersection of Maranatha Drive and Cabrera Drive

|                 | SUMMARY OF REVISIONS |                  |           |           |  |
|-----------------|----------------------|------------------|-----------|-----------|--|
| Flooding Source | Effective Flooding   | Revised Flooding | Increases | Decreases |  |
| Alcorn Bayou    | BFEs*                | BFEs             | YES       | YES       |  |
| SS Lake 1       | Zone X (shaded)      | Zone AE          | YES       | NONE      |  |
|                 | Zone AE              | Zone AE          | YES       | YES       |  |
|                 | No BFEs              | BFEs             | YES       | NONE      |  |
| AB Lake A1      | Zone X (shaded)      | Zone AE          | YES       | NONE      |  |
|                 | No BFEs              | BFEs             | YES       | NONE      |  |
| AB Lake A2      | Zone X (shaded)      | Zone AE          | YES       | NONE      |  |
|                 | No BFEs              | BFEs             | YES       | NONE      |  |

\* BFEs - Base Flood Elevations

This determination is based on the flood data presently available. The enclosed documents provide additional information regarding this determination. If you have any questions about this document, please contact the FEMA Map Information eXchange (FMIX) toll free at 1-877-336-2627 (1-877-FEMA MAP) or by letter addressed to the LOMC Clearinghouse, 847 South Pickett Street, Alexandria, VA 22304-4605. Additional Information about the NFIP is available on our Web site at http://www.fema.gov/business/nfip.

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## LETTER OF MAP REVISION DETERMINATION DOCUMENT (CONTINUED)

### OTHER COMMUNITIES AFFECTED BY THIS REVISION

**CID Number:** 480234 **Name:** City of Sugar Land. Texas

| AFFECTED MAP PANELS                                 | AFFECTED PORTIONS OF THE FLOOD INSURANCE STUDY REPORT  |  |  |  |
|---|--|--|--|--|
| TYPE: FIRM* NO.: 48157C0265 J DATE: January 3, 1997 | DATE OF EFFECTIVE FLOOD INSURANCE STUDY: November 7, 2001<br>PROFILE: 48P<br>SUMMARY OF DISCHARGES TABLE: 2<br>SUMMARY OF STILLWATER ELEVATIONS TABLE: 5 |  |  |  |

This determination is based on the flood data presently available. The enclosed documents provide additional information regarding this determination. If you have any questions about this document, please contact the FEMA Map Information eXchange (FMIX) toll free at 1-877-336-2627 (1-877-FEMA MAP) or by letter addressed to the LOMC Clearinghouse, 847 South Pickett Street, Alexandria, VA 22304-4605. Additional Information about the NFIP is available on our Web site at http://www.fema.gov/business/nfip.

HAR

Stuart W. Rooney, CFM, PMP, Program Specialist Engineering Management Branch Federal Insurance and Mitigation Administration

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Washington, D.C. 20472

## LETTER OF MAP REVISION DETERMINATION DOCUMENT (CONTINUED)

#### **COMMUNITY INFORMATION**

#### APPLICABLE NFIP REGULATIONS/COMMUNITY OBLIGATION

We have made this determination pursuant to Section 206 of the Flood Disaster Protection Act of 1973 (P.L. 93-234) and in accordance with the National Flood Insurance Act of 1968, as amended (Title XIII of the Housing and Urban Development Act of 1968, P.L. 90-448), 42 U.S.C. 4001-4128, and 44 CFR Part 65. Pursuant to Section 1361 of the National Flood Insurance Act of 1968, as amended, communities participating in the NFIP are required to adopt and enforce floodplain management regulations that meet or exceed NFIP criteria. These criteria, including adoption of the FIS report and FIRM, and the modifications made by this LOMR, are the minimum requirements for continued NFIP participation and do not supersede more stringent State/Commonwealth or local requirements to which the regulations apply.

#### **COMMUNITY REMINDERS**

We based this determination on the 1-percent-annual-chance discharges computed in the submitted hydrologic model. Future development of projects upstream could cause increased discharges, which could cause increased flood hazards. A comprehensive restudy of your community's flood hazards would consider the cumulative effects of development on discharges and could, therefore, indicate that greater flood hazards exist in this area.

Your community must regulate all proposed floodplain development and ensure that any permits required by Federal or State/Commonwealth law have been obtained. State/Commonwealth or community officials, based on knowledge of local conditions and in the interest of safety, may set higher standards for construction or may limit development in floodplain areas. If your State/Commonwealth or community has adopted more restrictive or comprehensive floodplain management criteria, those criteria take precedence over the minimum NFIP requirements.

We will not print and distribute this LOMR to primary users, such as local insurance agents or mortgage lenders; instead, the community will serve as a repository for the new data. We encourage you to disseminate the information in this LOMR by preparing a news release for publication in your community's newspaper that describes the revision and explains how your community will provide the data and help interpret the NFIP maps. In that way, interested persons, such as property owners, insurance agents, and mortgage lenders, can benefit from the information.

This revision has met our criteria for removing an area from the 1-percent-annual-chance floodplain to reflect the placement of fill. However, we encourage you to require that the lowest adjacent grade and lowest floor (including basement) of any structure placed within the subject area be elevated to or above the Base (1-percent-annual-chance) Flood Elevation.

This determination is based on the flood data presently available. The enclosed documents provide additional information regarding this determination. If you have any questions about this document, please contact the FEMA Map Information eXchange (FMIX) toll free at 1-877-336-2627 (1-877-FEMA MAP) or by letter addressed to the LOMC Clearinghouse, 847 South Pickett Street, Alexandria, VA 22304-4605. Additional Information about the NFIP is available on our Web site at http://www.fema.gov/business/nfip.

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## LETTER OF MAP REVISION DETERMINATION DOCUMENT (CONTINUED)

We have designated a Consultation Coordination Officer (CCO) to assist your community. The CCO will be the primary liaison between your community and FEMA. For information regarding your CCO, please contact:

Mr. Frank Pagano
Director, Mitigation Division
Federal Emergency Management Agency, Region VI
Federal Regional Center, Room 206
800 North Loop 288
Denton, TX 76209
(940) 898-5127

#### STATUS OF THE COMMUNITY NFIP MAPS

We are processing a revised FIRM and FIS report for Fort Bend County in our countywide format; therefore, we will not physically revise and republish the FIRM and FIS report for your community to incorporate the modifications made by this LOMR at this time. Preliminary copies of the countywide FIRM and FIS report, which present information from the effective FIRMs and FIS reports for your community and other incorporated communities in Fort Bend County, were submitted to your community for review on October 30, 2009. We will incorporate the modifications made by this LOMR into the countywide FIRM and FIS report before they become effective.

This determination is based on the flood data presently available. The enclosed documents provide additional information regarding this determination. If you have any questions about this document, please contact the FEMA Map Information eXchange (FMIX) toll free at 1-877-336-2627 (1-877-FEMA MAP) or by letter addressed to the LOMC Clearinghouse, 847 South Pickett Street, Alexandria, VA 22304-4605. Additional Information about the NFIP is available on our Web site at http://www.fema.gov/business/nfip.

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## LETTER OF MAP REVISION DETERMINATION DOCUMENT (CONTINUED)

### **PUBLIC NOTIFICATION OF REVISION**

A notice of changes will be published in the *Federal Register*. This information also will be published in your local newspaper on or about the dates listed below and through FEMA's Flood Hazard Mapping Web site at https://www.floodmaps.fema.gov/fhm/Scripts/bfe\_main.asp.

LOCAL NEWSPAPER Name: The India Herald

Dates: 01/30/2013 and 02/06/2013

Within 90 days of the second publication in the local newspaper, a citizen may request that we reconsider this determination. Any request for reconsideration must be based on scientific or technical data. Therefore, this letter will be effective only after the 90-day appeal period has elapsed and we have resolved any appeals that we receive during this appeal period. Until this LOMR is effective, the revised flood hazard determination information presented in this LOMR may be changed.

This determination is based on the flood data presently available. The enclosed documents provide additional information regarding this determination. If you have any questions about this document, please contact the FEMA Map Information eXchange (FMIX) toll free at 1-877-336-2627 (1-877-FEMA MAP) or by letter addressed to the LOMC Clearinghouse, 847 South Pickett Street, Alexandria, VA 22304-4605. Additional Information about the NFIP is available on our Web site at http://www.fema.gov/business/nfip.

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Table 2 Summary of Discharges-continued

| FLOODING SOURCE                                 | DRAINAGE AREA       |                | PEAK DISCHARGES (cfs) |                 |          |
|---|---------------------|----------------|-----------------------|-----------------|----------|
| AND LOCATION                                    | (Square Miles)      | <u>10-YEAR</u> | <u>50-YEAR</u>        | <u>100-YEAR</u> | 500-YEAR |
| ALCORN BAYOU                                    |                     |                |                       |                 |          |
| Approximately 0.47 mile                         |                     |                |                       |                 |          |
| upstream of confluence                          |                     |                |                       |                 |          |
| with Brazos River                               | 1.20                | *              | *                     | 1,196           | *        |
| BRAZOS RIVER                                    |                     |                | Ť                     | ↑<br>REVISED I  | DATA     |
| Approximately 5.6                               |                     |                | EVISED BY LO          | MR              | DATA     |
| miles upstream of                               |                     | EFFECT         | IVE APRIL 2, 20       | 010             |          |
| Atchison, Topeka,                               | 01 0001             |                | 455 000               | 101 000         | 0.40     |
| and Santa Fe Railway                            | 21,380 <sup>1</sup> | 101,000        | 157 <b>,</b> 000      | 181,000         | 242,000  |
| BULLHEAD BAYOU                                  |                     |                |                       |                 |          |
| Approximately 1.30 miles                        |                     |                |                       |                 |          |
| upstream of confluence                          |                     |                |                       |                 |          |
| with Ditch H                                    | 5.08                | *              | *                     | 1,766           | *        |
| Approximately 1.43 miles upstream of confluence |                     |                |                       |                 |          |
| with Ditch H                                    | 4.35                | *              | *                     | 1,632           | *        |
| CLEAR CREEK                                     |                     |                | <u>†</u>              |                 |          |
| Approximately 0.42 mile                         |                     | REVISED        | BY LOMR EFFECT        | ΠVE             |          |
| downstream of State                             |                     | JAN            | IUARY 25, 2007        |                 |          |
| Route 288                                       | 6.17                | 645            | 891                   | 1,049           | 1,230    |
| At FM 2234                                      | 5.27                | 540            | 825                   | 969             | 1,160    |
| Approximately 0.62 mile                         |                     |                |                       |                 |          |
| upstream of FM 2234                             | 2.82                | 438            | 767                   | 951             | 1,160    |
| CLODINE DITCH                                   |                     |                |                       |                 |          |
| At FM 1093                                      | 9.62                | 797            | 1,157                 | 1,287           | 1,650    |
| At Harlem Road                                  | 7.33                | 594            | 855                   | 962             |          |
| Approximately 1.35                              |                     |                |                       |                 |          |
| miles upstream of<br>Harlem Road                | 5.25                | 401            | 577                   | 683             | 890      |
| nariem Road                                     | 5.25                | 401            | 377                   | 003             | 890      |
| COON CREEK                                      |                     |                |                       |                 |          |
| At Band Road                                    | 14.85               | 1,250          | *                     | 2,400           | 3,750    |
| Approximately 0.28 mile                         |                     |                |                       |                 |          |
| upstream of the Souther<br>Pacific Railroad     | n<br>11.70          | 1 100          | *                     | 2,000           | 3 150    |
| Approximately 0.29 mile                         | 11.70               | 1,100          |                       | 2,000           | 3,150    |
| upstream of Cottonwood                          |                     |                |                       |                 |          |
| Road  | 10.00               | 1,000          | *                     | 1,700           | 2,450    |
| COW CREEK                                       |                     |                |                       |                 |          |
| Approximately 0.47 mile                         |                     |                |                       |                 |          |
| upstream of its                                 |                     |                |                       |                 |          |
| confluence with the                             |                     |                |                       |                 |          |
| Brazos River                                    | 61.00               | 3,600          | 5 <b>,</b> 900        | 6,900           | 9,100    |

<sup>&</sup>lt;sup>1</sup>Area below Possum Kingdom Reservoir; area above reservoir determined non-contributary to 100-year flood

<sup>\*</sup>Data not computed

Table 2 Summary of Discharges-continued

| FLOODING SOURCE                                   | DRAINAGE AREA                   |                | PEAK DISC      | HARGES (cfs)    |                 |  |  |
|---|---------------------------------|----------------|----------------|-----------------|-----------------|--|--|
| AND LOCATION                                      | (Square Miles)                  | <u>10-YEAR</u> | <u>50-YEAR</u> | <u>100-YEAR</u> | <u>500-YEAR</u> |  |  |
| Snake Slough                                      |                                 |                |                |                 |                 |  |  |
| Approximately 600 feet downstream of Hagerson     |                                 |                |                |                 |                 |  |  |
| Road  | 0.41                            | *              | *              | 297             | *               |  |  |
| Approximately 3.35 miles                          |                                 |                |                |                 |                 |  |  |
| -upstream of confluence<br>-with Steep Bank Creek | -0.15                           | *              | *              | 268             | *-              |  |  |
| I Seeep Bank of eek                               |                                 |                |                | 200             |                 |  |  |
| Steep Bank Creek                                  |                                 |                |                |                 |                 |  |  |
| Approximately 2.80 miles                          |                                 |                |                |                 |                 |  |  |
| upstream of confluence<br>with Snake Slough       | 1.50                            | *              | *              | 1,322           | *               |  |  |
|   |                                 |                |                | ,               |                 |  |  |
|   |                                 | 1              |                |                 |                 |  |  |
|   | DATA REVISED BY LOMR REVISED DA |                |                |                 |                 |  |  |
|   | EFFEC                           | TIVE APRIL 2   | 2, 2010        |                 |                 |  |  |
| <del>Diversion</del>                              |                                 |                |                |                 | •               |  |  |
| -Approximately 0.25 miles                         | -0.1                            |                | <b>+</b>       | 87              |                 |  |  |
| -upstream of confluence with<br>-Alcorn Bayou     | 0.1                             |                |                | - 0 /           | *               |  |  |
| -   |                                 |                |                |                 |                 |  |  |

REVISED TO REFLECT LOMR

EFFECTIVE: June 6, 2013

<sup>\*</sup>Data not computed

| FLOODING SOURCE AND<br>TRANSECT       | FLOOD INSURANCE<br>RATE MAP PANEL            | STILL            | WATER ELEV | ATION (FEET N                          | NGVD)<br>500-YEAR | ZONE           | BASE FLOOD<br>ELEVATION<br>(FEET NGVD) |
|---------------------------------------|--|------------------|------------|--|-------------------|----------------|--|
| AB Lake A1<br>AB Lake A2<br>SS Lake 1 | 48157C0265 J<br>48157C0265 J<br>48157C0265 J | **     **     ** | ** ** **   | 65.1<br>65.1<br>64.9                   | ** ** **          | AE<br>AE<br>AE | 65<br>65<br>65                         |
|                                       |  |                  |            | REVISED TO<br>REFLECT LO<br>EFFECTIVE: | MR                |                |  |

<sup>\*\*</sup> Data not available

TABLE 5

# FEDERAL EMERGENCY MANAGEMENT AGENCY FORT BEND COUNTY, TX AND INCORPORATED AREAS

**SUMMARY OF STILLWATER ELEVATIONS** 





